

CYPRESS PRoC™-UI

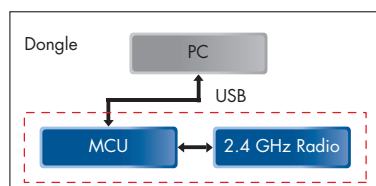
INTRODUCING A SINGLE CHIP CAPACITIVE
TOUCH-ENABLED WIRELESS SOLUTION



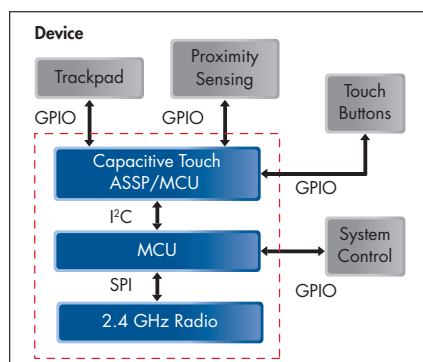
PRODUCT OVERVIEW

INTRODUCTION

PRoC™-UI is a complete system solution for applications that need capacitive touch interfaces and a wireless 2.4 GHz communication link. PRoC-UI's low-power operation makes it ideal for battery-operated applications such as Human Interface Devices (HID - touch mice, wireless trackpads), remote controllers, toys and more. PRoC-UI eliminates the need for multiple ICs typically required for similar designs.

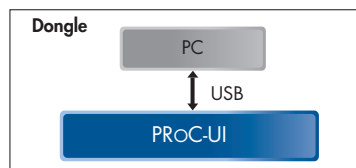


Cypress ICs External Devices

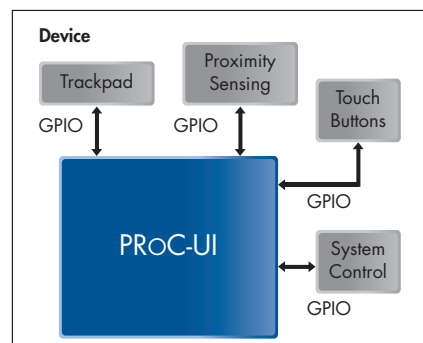


- 2/3 chip solution to implement capacitive touch
- Complex system design
- Big footprint, increased BOM cost

Without PRoC-UI



Cypress ICs External Devices



- Single chip solution to implement capacitive touch
- Simple system design
- Small footprint, low BOM cost

With PRoC-UI

FEATURES

- 2.4 GHz wireless transceiver with capacitive sensing engine
 - 1 Mbps over-the-air data rate
 - Receiver sensitivity ≈ -87 dBm
 - Sleep Current: 1 μ A
 - Active Current: 18.5 mA (Tx), 18 mA (Rx)
- Wide operating range: 1.9 V to 3.6 V
- Complete development tools and guides

PRoC-CS (CapSense® VARIANT)

- Configurable capacitive sensing elements
 - Sleep current: 100 nA, active current: 7 μ A per sensor at 500 ms scan rate
 - Supports SmartSense™ Auto-tuning
 - Supports CapSense buttons, sliders and proximity sensors

PRoC-TT (TrueTouch® VARIANT)

- TrueTouch capacitive touchscreen controller
 - Supports one and two-finger touch applications
 - Supports up to 26 X/Y sensor inputs
 - Fast scan rates: Upto 400 μ s per sensor
 - Full function gesture library with Windows 8 support

PRoC-CS



Keyboard with capacitive buttons



Mouse with capacitive scroll



Buttons, sliders, proximity

- 40 QFN package - 13 GPIOs or 68 QFN - 35 GPIOs
- Offers integrated low power CapSense, system control and radio in package

PRoC-TT



Wireless trackpad



Gesture enabled mouse



Two-finger gestures

- 68 QFN packages - 35 GPIOs
- Offers integrated low power two-finger gestures touch sensing, system control and radio in package

PRoC-UI is available in two variants - PRoC-CS, intended for capacitive touch buttons or sliders and PRoC-TT for one or two-finger gesture enabled capacitive touch interfaces.

PRoC-CS

PRoC-CS adds Cypress' leading capacitive touch sensing engine with a mature wireless 2.4 GHz radio. It supports capacitive touch buttons, sliders and proximity sensors bundled with Cypress' SmartSense™ technology for easy set up and tuning. PRoC-CS eliminates the need for an additional device for capacitive interfaces and provides significant reduction in design complexity, system cost and power consumption.

Applications: Touch mice with capacitive scroll wheel, keyboards with capacitive media buttons, and remote controllers with capacitive buttons and sliders

PRoC-TT

Extending the touch advantage further, PRoC-TT supports capacitive touch with one and two-finger gestures in addition to proprietary wireless 2.4 GHz radio. PRoC-TT is ideal for Windows 8 based HID applications such as wireless trackpads and touch sensitive mice. PRoC-TT provides significant reduction in design-in complexity, system cost and power consumption.

Applications: Gesture enabled mice, wireless trackpads, keyboards with trackpads, and remote controllers with trackpads

Product	MPN	Output Power (dBm)	Receiver Sensitivity (dBm)	Flash (KB)	I/O	Package
PRoC-CS	CYRF89435-40LTXC	+0	-87	32	13	40 QFN
	CYRF89435-68LTXC	+0	-87	32	35	68 QFN
PRoC-TT	CYRF89535-68LTXC	+0	-87	32	35	68 QFN

GET STARTED NOW

Samples are now available. Visit www.cypress.com/go/PRoC-UI or email us at procui@cypress.com for more information.

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